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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,133	09/24/2003	Iain Cameron Macaulay	MRKS/0094	2573

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EXAMINER
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BOCHNA, DAVID

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/670,133

Applicant(s)

MACAULAY, IAIN CAMERON

Examiner

David E. Bochna

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-12,15-25,30 and 31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30 is/are allowed.
- 6) ☒ Claim(s) 1,3-8,15-25 and 31 is/are rejected.
- 7) ☒ Claim(s) 9-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-8, 16-23 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baugh et al. in view of Mallis.

In regard to claim 1, Baugh et al. discloses an expandable tubular coupling comprising:

a threaded male portion 10; and

a corresponding threaded female portion 12, the threaded portions featuring thread profiles configured such that the coupling may be made up to a predetermined extent, and once made up to said predetermined extent may be made up no further, each threaded portion comprising:

a first part having a first thread profile, and a second part having a second thread profile.

Baugh et al. discloses making each threaded portion with first and second threaded parts in order to create a connection with a reliable metal to metal seal and a larger break out torque, but Baugh et al. does not disclose that the first thread profile has a different shape than the second thread profile. Mallis teaches providing a threaded portion with a first thread profile that is different from a second profile (see fig. 4) in order to increase the sealing ability of the threaded joint and also to maximize effects of friction on break-out torque resistance (see col. 5, lines 27-35 of

Art Unit: 3679

Mallis). Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the threads of Baugh et al. to include different shaped profiles, as taught by Mallis, in order to improve upon the sealing and make-up properties of the threaded joint.

In regard to claim 3, wherein the male portion has a leading part with a thread profile corresponding to the thread profile of a trailing part of the female portion (see abstract of Mallis).

In regard to claim 4, wherein the male portion has a trailing part with a thread profile corresponding to a thread profile of a leading part of the female portion (see abstract of Mallis).

In regard to claim 5, wherein the thread profiles are configured such that the thread portions may be made up until the start of the thread profile on the trailing part of the male portion encounters the start of the different thread profile on the trailing part of the female portion (they are wedge threads).

In regard to claims 6 and 19, wherein the change in thread profiles between the leading part of the female portion and the trailing part of the female portion is abrupt (see fig. 10).

In regard to claims 7 and 20, wherein the change in thread profiles between the leading part of the female portion and the trailing part of the female portion is gradual (see fig. 4).

In regard to claims 8 and 21, wherein the change in thread profiles between the leading part of the female portion and the trailing part of the female portion is incremental (see figs. 6-9).

In regard to claim 15, Baugh et al. states that a wide variety of thread forms can be used (see col. 2, lines 11-12), but does not specifically mention square threads. However, it would have been obvious to use square threads because square threads are commonly used in connection threaded downhole tubulars and a change in the shape of a prior art device is a

Art Unit: 3679

design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

In regard to claim 16, wherein the thread profiles are dovetail profiles.

In regard to claim 17, wherein a smaller thread profile is provided on the leading part of the male portion and is adapted to mate with a similarly dimensioned thread profile provided on the trailing part of the female portion (see fig. 4 where WW+AR is larger than any of the dimensions in the leading thread profile).

In regard to claim 18, wherein a larger dimensioned thread profile is provided on the trailing part of the male portion and leading part of the female portions, which larger dimensioned thread profiles are engageable with each other but are not engageable with smaller thread profiles provided on the leading part of the male portion and a trailing part of the female portions respectively (see fig. 4 where WW+AR is larger than any of the dimensions in the leading thread profile).

In regard to claim 22, wherein the thread profiles are parallel (see fig. 2 of Baugh et al.).

In regard to claim 23, the thread profiles are tapered (see fig. 3 of Mallis)

In regard to claim 24, it would have been obvious to make the right hand threads left hand threads because the reversal of components in a prior art reference, where there is no disclosed significance to such reversal, is a design consideration within the skill of the art. In re Gazda, 219 F.2d 449, 104 USPQ 400 (CCPA 1955); In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

In regard to claim 25, wherein the thread profiles are right hand.

*Allowable Subject Matter*

3. Claims 9-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. Claim 30 is allowed.

*Response to Arguments*

5. Applicant's arguments with respect to claims 1,3-8,15-25 and 31 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3679

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Bochna whose telephone number is (703) 306-9040. The examiner can normally be reached on 8-5:30 Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (703) 308-2686. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.

A handwritten signature in black ink, appearing to read "David Bochna", with a stylized flourish extending to the right.

**David Bochna**  
**Primary Examiner**  
**Art Unit 3679**  
**May 2, 2005**